CHAPTER 5. TIQM® CERTIFICATION PROCESS

5-1 Overview

A. This chapter describes the method and techniques that will be used by the EDMG to perform the final task of independent verification or certification of mission-critical information. This task of independent verification, or certification, takes place after the processes that produce or maintain selected data elements and information groups are improved and the existing data has been corrected. Based on the established priorities and schedules, the EDMG will verify that the level of data quality achieved is aligned with the expectations of all business areas that consume the information. This certification will be in two areas:

1. First, to assess whether the data produced by *create* and *maintain* processes are in compliance with the definition and quality standards of the information. This assessment will help evaluate and improve the effectiveness of process improvement efforts.
2. Second, to assess whether the data contained in files, databases, data warehouses, data marts, reports, and screens are also in compliance. This assessment will help evaluate the adequacy of data correction efforts.

B. Based on its observations and findings, the EDMG will recommend improvements to the procedures used to implement information quality improvements (defect prevention) as well as improvements in data correction procedures. In addition, if the certification process finds shortfalls in information quality, the responsible Program Areas will need to submit a new schedule and perform additional information improvement and/or correction.

5-2 Certify Information Quality Process Improvements

A. This activity is similar to the "Check Impact of Information Quality Improvement" activity, described in Section 3-5. Before a meaningful certification of an information process improvement can be performed, the process under improvement must be certified as being in statistical control. That is, the process must be producing a consistent (predictable) and acceptable level of quality of information (the data is consistently meeting all knowledge workers and end customer needs). Once the process is in statistical control, it is possible to determine that the changes indeed produced the expected improvements.

B. Verify the effectiveness of the Information Quality Improvement process by assessing the results of the information quality improvement. Critical points to be assessed include

1. Was the information quality improvement planned appropriately? Is there something that can be done to improve the process? The plans (the "P" in the PDCA cycle) and the actual execution logs will be used to determine if the process needs to be revised for improvement.
2. Was the information quality improvement implemented in a controlled environment? Was the control environment representative of the target environment? This is the process of determining the effectiveness of the execution (the "D" in the PDCA cycle).
3. Were the information quality improvement results checked for impact across the information value chain? This is the process of determining the effectiveness of the "check" (the "C" in the PDCA cycle).

4. Were the actions to standardize the information quality improvement across the target environment effective? Were the expected results achieved? The actual rollout or "Act" (the "A" in the PDCA cycle) logs will be used to determine if "unplanned" events or activities can be prevented or mitigated in future efforts.

If the EDMG identifies a need for improvement in any of these areas, it will determine the root cause. This may necessitate application of the "why" technique or the fish-bone technique (as described in Section 3-3(B)).

5-3 Certify Data Corrections

A. This section outlines the steps necessary to assess the adequacy of the Data Correction efforts to reengineer or correct existing data.

B. Define the Scope of the Certification

1. Identify the information group to be certified and the assessment points (files, databases, screens, reports) within their value and cost chain, using the same criteria as stated in Section 2-2(G) but only for information groups the Program Area has identified as ready for certification and for the assessed information quality objectives and measures. This will produce a Scope Statement and Work Plan. The work plan is based on the original assessment plan. The Work Plan indicates the information group, the entire value chain, the operational systems, system interfaces, and analytical systems that will be certified as well as the tasks to be conducted, dependencies, sequence, time frames, milestones, expected outcomes (products), and estimated time to complete. The plan will specify any assumptions, critical success factors, or risks.

C. Identify the Data Element Definitions

1. If the Program Area has applied the TIQM® approach described in this Handbook, then the comprehensive definition will already be specified for each data element. Refer to Section 2-3 for a detailed discussion on this task. However, if the data definition is not in place, it will be defined using the approach described in Section 2-3(F).

D. Define Certification Approach

1. Based on the prior assessment for each information group, determine one or more techniques for assessing their actual level of quality. Refer to Section 2-5(C) for details on this selection.

E. Define Sample Size and Resources

1. Based on the prior assessment, for each information group and for each assessment point, determine the sample size using the same approach as the prior assessment (see Section 2-5(B)). Identify the participants in the assessment process and the estimated number of hours and calendar days required. Identify any special requirements, such as access to documents, acquisition of tool(s) not already in HUD's inventory, travel.

F. Develop Certification Criteria

1. The terms of the certification will be the same as those agreed upon as part of the original assessment, unless otherwise agreed to by the OCIO and the Program

Area, based on lessons learned during the data correction process or special conditions identified by either party.

G. Conduct Certification

1. Perform the tasks in the certification plan to determine the level of compliance of the data elements within the scope of the certification.

H. Interpret and Report Information Quality Certification

1. Once the data has been certified, report the results as stated in Section 2-7, replacing the term "assessment" with the term "certification."

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